

## REMARKS

Applicant has filed the present Response in reply to the outstanding Official Action of January 10, 2006 and Advisory Action dated June 2, 2006, and the Applicant believes the Response to be fully responsive to the Official Action for the reasons set forth below in greater detail.

At onset Applicant would like to thank the Examiner for taking the time to speak with Applicant's representative in a telephonic interview. During the interview, Applicant's representative discussed a proposed claim amendment. The Examiner indicated that the amendment would overcome the instant rejection.

Accordingly, Claim 1 has been amended to include the subject matter discussed during the interview. Applicant believes that the amendments overcome the problem identified in the Advisory Action, namely, relying on limitations that are not specifically recited in the claims. Specifically, Claim 1 has been amended to recite that the IP scheduling/format converting section sequentially schedules said IP packets on a packet basis. The claim further recites that the IP scheduling/format converting section includes a plurality of packets FIFOs (First-In First-Out memories) for storing said scheduled IP packets and the IP scheduling/format converting section maps the scheduled IP packets into the ATM cells having a VCI number.

No new matter has been added by way of the aforementioned amendment. For example, support therefor can be found at page 5.

Applicant respectfully submits that none of the cited references, e.g., Giroux and Goldman, teach, suggest or render obvious each and every limitation of amended Claim 1.

Goldman describes, "the cell queue memory 135 is broken up into a **plurality of queue** groups 310.<sub>1</sub> -310.<sub>N</sub> ("310") which are associated with the number of output ports (or virtual

interface) supported. (Figure 3 shows an organization of the **cell queue memory 135**.) Each queue group 310 is further broken up into one or more class of service queues. For example, queue group 310 includes, for example, sixteen classes of service queues 315.<sub>1</sub> -315.<sub>16</sub> ("315"). The number of class of service queues is a matter of design choice and may vary from one implementation to another. The class of service queues 315 typically represent priority levels depending on the **cell type**". See Col. 4, lines 45-56. Additionally, "incoming **cells** are stored at the end of the class of service queue that corresponds to the **cell's** VC, while outgoing **cells** are retrieved from the head of the class of service queue that corresponds to the **cell's** VC." *Id.* at 65-67. Based on the queue cell counts, and priority information of the queues, the departure controller 250 then determines which queue to service. The departure controller 250 directs the queue control circuit 240 by way of signal line(s) 255 to **retrieve cells from the cell queue memory 135** and place them in one of the output FIFOs 265.<sub>1</sub> -265.<sub>N</sub>.

Goldman constantly refers to "cells" and not "IP packets" when referencing the service queue, which supports the definition, as provided by Goldman, i.e., the "cell queue memory".

It is clear that the plurality of queue groups are not **packet** FIFOs, rather they appear to be just an input buffer prior to being transmitted to the cell FIFOs, i.e., cell queue memory. While, Applicant acknowledges a relationship between cells and packets, the claim clearly delineates that a cell and a packet are two different elements. If they were the same there would be no need to convert a packet into cells.

In contrast, in the claimed invention **IP packets are stored** in the respective FIFO 111 and then are divided into ATM cells. A packet FIFO is allocated to a particular VCI, whereas, at best, Goldman suggests that more than one VC may be assigned to a class of service queues.

Accordingly, the hypothetically combined references do not suggest the claimed scheduling/format converting section and all of the recited features thereof.

Applicant further submits that Claim 6 is patentable based up its dependency, whether directly or indirectly, from Claim 1.

Additionally, with respect to Claim 8, Applicant respectfully submits that Claim 8 is patentable over the cited references based upon the above-identified reasons and based upon at least the following additional reasons.

Applicant submits that neither reference, whether taken alone or in any combination thereof, teaches, suggests or renders obvious discarding an entire packet on a packet basis when the packet FIFOs are full. At best, Goldman teaches discarding a frame when the "accumulated discard probably" is greater than a random value. However, discarding a packet when an "accumulated discard probably" is greater than a random value is not the same or equivalent to discarding the packet when the packet FIFO is full.

The Giroux reference does not teach discarding an entire packet. Giroux teaches that "[c]ells are discarded in an ATM network during traffic congestion when buffers at the nodes of the network become full or near full. Cells transmitted over VCs with higher levels of service are less likely to be discarded than cells transmitted over VCs with lower levels of service." See Col. 1, lines 55-60.

In contrast, in the claimed invention when the ATM cells are full and the packet FIFOs are also full, the IP scheduling section discards an entire packet on a packet basis.

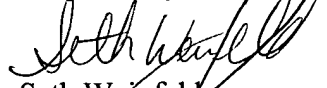
Neither reference suggests or teaches this feature. Accordingly, Claim 8 is patentably distinct from the hypothetical combination.

Furthermore, Applicant respectfully submits that Claim 9 is patentably distinct from the cited references based upon its dependency from both Claims 1 and 8 and based upon the above-identified reasons.

For all the foregoing reasons, the Applicant respectfully requests the Examiner to withdraw the rejections of Claims 1, 6, 8 and 9 pursuant to 35 U.S.C. § 103(a).

In conclusion, the Applicant believes that the above-identified application is in condition for allowance and henceforth respectfully solicits the Examiner to allow the application. If the Examiner believes a telephone conference might expedite the allowance of this application, the Applicant respectfully requests that the Examiner call the undersigned, Applicant's attorney, at the following telephone number: (516) 742-4343.

Respectfully submitted,



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